

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Seaman, et al.

Group Art Unit: 2624

Serial No.: 10/002,706

Examiner: Rosario, Dennis

Filed: October 30, 2001

Docket No. 10008306-1

For: **Systems And Methods For Generating Digital Images Having Image Meta-Data Combined With The Image Data**

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Sir:

This Appeal Brief under 37 C.F.R. § 41.37 is submitted in support of the Notice of Appeal filed December 12, 2007, responding to the Final Office Action mailed August 16, 2007.

It is not believed that extensions of time or fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 08-2025.

I. Real Party in Interest

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. Related Appeals and Interferences

There are no known related appeals or interferences that will affect or be affected by a decision in this Appeal.

III. Status of Claims

Claims 1-3, 6, 19-26, and 28-33 have been canceled leaving claims 4, 5, 7-18, and 27 remaining. Each of those claims stand finally rejected. No claims have been allowed. The final rejections of claims 4, 5, 7-18, and 27 are appealed.

IV. Status of Amendments

This application was originally filed on October 30, 2001, with twenty (20) claims. In a Response filed November 10, 2004, Applicant amended claims 4, 7, 13, 15, 16, 17, and 19, and canceled claims 1-3. In a Response filed June 14, 2005, Applicant attempted to amend claim 12 in the manner suggested by the Examiner and amend claims 16 and 18 to correct typographical errors. In an Advisory Action dated July 11,

2005, however, the Examiner refused to enter the amendments. In a Response filed April 11, 2006, Applicant canceled claims 19, 20 and added new claims 21-33. In a Response filed July 17, 2006, Applicant amended claims 4, 7, 13, 16 and canceled claims 6, 21-26, and 28-33. In a Response filed October 18, 2006, Applicant amended claims 4, 7, 13, and 16.

All of the above-identified amendments have been entered and no other amendments have been made to any of claims 4, 5, 7-18, and 27. The claims in the attached Claims Appendix (see below) reflect the present state of those claims.

V. Summary of Claimed Subject Matter

The claimed inventions are summarized below with reference numerals and references to the written description (“specification”) and drawings. The subject matter described in the following appears in the original disclosure at least where indicated, and may further appear in other places within the original disclosure.

Independent claim 4 describes an image file (406, Figure 4) embodied in a computer-readable medium. The image file comprises digital image data (402, Figure 4) that represents an image. *Applicant's specification*, page 9, line 20 to page 10, line 12. The image file further comprises image meta-data (404, Figure 4) associated with the digital image data created by applying a predefined image analysis algorithm (216, Figure 4) to the digital image data to identify within the image a recognized location at which the image was captured. *Applicant's specification*, page 9, line 20 to page 10, line 12; page 10, line 20 to page 11, line 7.

Independent claim 7 describes an image capture device (102, Figure 1). The image capture device comprises image capture hardware (208, Figure 2) configured to capture an image. *Applicant's specification*, page 6, lines 8-16. The image capture device further comprises logic configured for: generating a digital representation of the image to generate image data (214, Figure 2), applying at least one predefined image analysis algorithm to the digital representation of the image to identify within the image a recognized location at which the image was captured and generate image meta-data corresponding to the recognized location, and combining the image meta-data corresponding to the recognized location with the image data to define new image data (216, Figure 2). *Applicant's specification*, page 6, lines 16-18; page 10, line 20 to page 11, line 7.

Independent claim 13 describes a method for generating an image file containing meta-data. The method comprises identifying a digital representation of an image, the digital representation comprising image data. *Applicant's specification*, page 9, lines 11-12; Figure 3, item 302. The method further comprises applying at least one predefined image analysis algorithm to the digital representation of the image to identify within the image a recognized location at which the image was captured, the at least one predefined image analysis algorithm generating meta-data corresponding to the recognized location. *Applicant's specification*, page 9, lines 12-14; page 10, line 20 to page 11, line 7; Figure 3, item 304. The method further comprises combining the meta-data corresponding to the recognized location with the image content data to define new image data. *Applicant's specification*, page 10, lines 1-3; Figure 3, item 308.

Independent claim 16 describes a method for searching image files having specific image meta-data. The method comprises receiving a search query comprising information related to specific image meta-data. *Applicant's specification*, page 15, lines 19-21; Figure 7, item 702. The method further comprises based on the search query, searching one or more image files for the image meta-data specified in the search query, the image meta-data having been generated by applying a predefined image analysis algorithm to a digital representation of an image to identify within the image a recognized location at which the image was captured. *Applicant's specification*, page 15, line 22 to page 16 line 1; page 10, lines 1-3; Figure 7, item 704. The method further comprises identifying one or more of the image files that comprise image meta-data that matches the image meta-data specified in the search query. *Applicant's specification*, page 16, lines 1-4; Figure 7, item 706.

VI. Grounds of Rejection to be Reviewed on Appeal

The following grounds of rejection are to be reviewed on appeal:

1. Claims 4, 5, 7-18, and 27 have been rejected under 35 U.S.C. § 112, second paragraph for allegedly claiming non-enabled subject matter.
2. Claims 4 and 5 have been rejected under 35 U.S.C. § 102(b) as being anticipated by *Wang, et al.* ("Wang," U.S. Pat. No. 6,035,055).
3. Claims 4, 7-15, and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fuller, et al.* ("Fuller," U.S. Pat. No. 6,877,134) in view of *Wang*.
4. Claims 16-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fuller* in view of *Wang* and further in view of *Li, et al.* ("Li," U.S. Pat. No. 5,734,893).

VII. Arguments

The Appellant respectfully submits that Applicant's claims are proper under 35 U.S.C. § 112, first paragraph, and are neither anticipated under 35 U.S.C. § 102 nor obvious under 35 U.S.C. § 103, and respectfully requests that the Board of Patent Appeals overturn the final rejections of those claims at least for the reasons discussed below.

A. Claim Rejections - 35 U.S.C. § 112, First Paragraph

Claims 4, 5, 7-18, and 27 have been rejected under 35 U.S.C. § 112, first paragraph for allegedly claiming non-enabled subject matter.

In the final Office Action, the Examiner argued that Applicant did not enable the limitation: "image meta-data associated with the digital image data created by applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured". The basis for the Examiner's position is a disclosure on page 11 of Applicant's specification that discusses meta-data that is not extracted by an image analysis algorithm. See *Applicant's specification*, page 11, lines 7-14. Applicant notes, however, that immediately prior to that portion of Applicant's disclosure, Applicant states:

. . . one of ordinary skill in the art will understand that each predefined image analysis algorithm 216 may be configured to extract any type of information from image 110. For example, a predefined image analysis algorithm 216 may be configured to extract key frame information from video images. Another predefined image analysis algorithm 216 may be configured to employ face recognition vectors to identify the presence of a

particular person in image 110. Another predefined image analysis algorithm 216 may be configured to identify particular scene content attributes in image 110, such as, for example, texture, color, and specific objects. As additional examples, predefined image analysis algorithms 216 may be configured to identify location recognition information and voice recognition vectors (video images).

Applicant's specification, page 10, line 20 to page 11, line 7 (emphasis added). From the above excerpt, it can be appreciated that Applicant explicitly describes *image analysis algorithms* that analyze image data to identify particular *scene content* and *recognize locations from that scene content*. Therefore, contrary to that alleged by the Examiner, Applicant's discussion of identifying locations is not limited to information manually input by a user.

Applicant further notes that, given that a location is recognized from analysis of content within the image, it logically follows that the algorithm identifies the recognized location "at which the image was captured".

In view of the above, it is clear that the claims 4, 5, 7-18, and 27 comply with 35 U.S.C. § 112, first paragraph. Accordingly, Applicant requests that the rejections be withdrawn.

B. Claim Rejections - 35 U.S.C. § 102(b)

Claims 4 and 5 have been rejected under 35 U.S.C. § 102(b) as being anticipated by *Wang, et al.* ("Wang," U.S. Pat. No. 6,035,055). Applicant respectfully traverses.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates*,

Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b). In the present case, Wang does not teach each and every feature of claim 4.

Independent claim 4 provides as follows (emphasis added):

4. An image file embodied in a computer-readable medium, comprising:

digital image data that represents an image; and

image meta-data associated with the digital image data *created by applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured.*

In rejecting claim 4, the Examiner stated that the explicit limitation “applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured” was “not given patentable weight” due to not having support in the specification. Therefore, the Examiner ignored that limitation in examining claim 4.

As noted above, the Examiner is incorrect as to the alleged lack of enablement because explicit support for location recognition limitation is present on page 11 of Applicant’s specification. Given that fact, the Examiner has failed to address each and every limitation of claim 4 as is required under 35 U.S.C. § 102.

Even assuming for the sake of argument that Applicant did not in fact enable the location recognition limitation, Applicant notes that the Examiner has a duty to consider and account for that limitation. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983)

aff'd mem. 738 F.2d 453 (Fed. Cir. 1984) (holding it was error to disregard unsupported limitations when determining whether the claimed was novel and unobvious). Applicant submits that the Examiner's refusal to address the location recognition limitation comprises reversible error.

As a further matter, Applicant notes that the Examiner's failure to identify disclosure of "applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured" within the Wang reference constitutes an admission that Wang does not in fact teach or suggest such location recognition.

In view of the above, Applicant respectfully submits that claims 4 and 5 are allowable over Wang.

C. Claim Rejections - 35 U.S.C. § 103(a)

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden 35 U.S.C. § 103 to establish obviousness by showing objective teachings in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). The key to supporting an allegation of obviousness under 35 U.S.C. § 103 is the clear articulation of the reasons why the Examiner believes that claimed invention would have been obvious. See MPEP § 2141. As stated by the Supreme Court, "[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to

support the legal conclusion of obviousness." *KSR v. Teleflex*, 550 U.S. at ___, 82 USPQ2d at 1396 (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

Applicant respectfully submits that the Examiner has not established with clearly articulated reasons that Applicant's claims are obvious in view of the prior art. Applicant discusses those claims in the following.

1. Rejection of Claims 4, 7-15, and 27

Claims 4, 7-15, and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fuller, et al.* ("Fuller," U.S. Pat. No. 6,877,134) in view of *Wang*. Applicant respectfully traverses this rejection.

Regarding independent claim 4, Wang does not disclose or suggest "applying a predefined image analysis algorithm to the digital image data to identify within the image a recognized location at which the image was captured" as described above. Fuller is similarly deficient in disclosing such location recognition and the Examiner again has disregarded that limitation. It therefore follows that (i) the Fuller/Wang combination does not disclose or suggest all of the claim limitations of claim 4, and (ii) the Examiner has improperly refused to address an explicit claim limitation. Regarding item (ii), Applicant refers the Examiner and the Board to MPEP 2143.03 which provides in part:

II. LIMITATIONS WHICH DO NOT FIND SUPPORT IN THE ORIGINAL SPECIFICATION MUST BE CONSIDERED

When evaluating claims for obviousness under 35 U.S.C. 103, all the limitations of the claims must be considered and given weight, including limitations which do not find support in the specification as originally filed (i.e., new matter). *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983) aff'd mem. 738 F.2d 453 (Fed. Cir. 1984) (Claim to a catalyst expressly excluded the presence of sulfur, halogen, uranium, and a combination of vanadium and phosphorous. Although the negative limitations excluding these elements did not appear in the specification as filed, it was error to disregard these limitations when determining whether the claimed invention would have been obvious in view of the prior art.).

Regarding independent claim 7, neither Fuller nor Wang disclose "applying at least one predefined image analysis algorithm to the digital representation of the image to identify within the image a recognized location at which the image was captured" for reasons described above and the Examiner has refused to address that limitation.

Regarding independent claim 13, neither Fuller nor Wang disclose "applying at least one predefined image analysis algorithm to the digital representation of the image to identify within the image a recognized location at which the image was captured" for reasons described above and the Examiner has refused to address that limitation.

In view of the foregoing, it is clear that Fuller and Wang do not disclose or suggest each and every limitation of independent claims 4, 7, or 13. Therefore, those claims, and their dependents, are allowable over the Fuller/Wang combination. Applicant requests that the rejections be reversed.

2. Rejection of Claims 16-18

Claims 16-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fuller* in view of *Wang* and further in view of *Li, et al.* ("Li," U.S. Pat. No. 5,734,893). Applicant respectfully traverses this rejection.

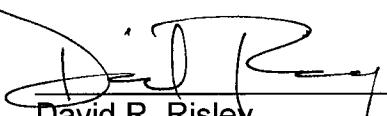
Regarding independent claim 16, neither *Fuller* nor *Wang* disclose "searching one or more image files for the image meta-data specified in the search query, the image meta-data having been generated by applying a predefined image analysis algorithm to a digital representation of an image to identify within the image a recognized location at which the image was captured" for reasons described above. Again, the Examiner has disregarded Applicant's explicit claim limitation in violation of MPEP 2143.0. Furthermore, given that *Li* does not provide that missing disclosure, it follows that the applied references fail to disclose or suggest all the limitations of claim 16. Applicant therefore requests that the rejections to claim 16-18 be reversed.

VIII. Conclusion

In summary, it is Applicant's position that Applicant's claims are patentable over the applied prior art references and that the rejection of these claims should be withdrawn. Appellant therefore respectfully requests that the Board of Appeals overturn the Examiner's rejection and allow Applicant's pending claims.

Respectfully submitted,

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Claims Appendix under 37 C.F.R. § 41.37(c)(1)(viii)

The following are the claims that are involved in this Appeal.

1-3. (Canceled)

4. An image file embodied in a computer-readable medium, comprising:
digital image data that represents an image; and
image meta-data associated with the digital image data created by applying a
predefined image analysis algorithm to the digital image data to identify within the image
a recognized location at which the image was captured.

5. The image file of claim 4, wherein the image meta-data comprises at least
one searchable keyword.

6. (Canceled)

7. An image capture device, comprising:
image capture hardware configured to capture an image; and
logic configured for:
generating a digital representation of the image, the digital representation
comprising image data;
applying at least one predefined image analysis algorithm to the digital
representation of the image to identify within the image a recognized location at

which the image was captured, the at least one predefined image analysis algorithm generating image meta-data corresponding to the recognized location; and

combining the image meta-data corresponding to the recognized location with the image data to define new image data.

8. The image capture device of claim 7, wherein the logic is software and further comprising a processing device for implementing the logic.

9. The image capture device of claim 7, wherein the logic is further configured for storing the new image data.

10. The image capture device of claim 7, further comprising a network interface device configured for communication with a communications network and wherein the logic is further configured for providing the new image data to the communications network.

11. The image capture device of claim 7, further comprising an interface configured for direct communication with a computer and wherein the logic is further configured for providing the new image data to the computer.

12. The image capture device of claim 7, wherein the image meta-data comprises at least one searchable keyword.

13. A method for generating an image file containing meta-data, the method comprising:

identifying a digital representation of an image, the digital representation comprising image data;

applying at least one predefined image analysis algorithm to the digital representation of the image to identify within the image a recognized location at which the image was captured, the at least one predefined image analysis algorithm generating meta-data corresponding to the recognized location; and

combining the meta-data corresponding to the recognized location with the image content data to define new image data.

14. The method of claim 13, wherein the meta-data comprises at least one searchable keyword.

15. The method of claim 13, wherein identifying a digital representation of the image involves receiving the image data.

16. A method for searching image files having specific image meta-data, the method comprising:

receiving a search query comprising information related to specific image meta-data;

based on the search query, searching one or more image files for the image meta-data specified in the search query, the image meta-data having been generated by applying a predefined image analysis algorithm to a digital representation of an image to identify within the image a recognized location at which the image was captured; and

identifying one or more of the image files that comprise image meta-data that matches the image meta-data specified in the search query.

17. The method of claim 16, further comprising providing the one or more image files that match the specific image meta-data in the search query.

18. The method of claim 16, wherein the image meta-data and the search query comprises at least one searchable keyword.

19-26. (Canceled)

27. The image capture device of claim 7, wherein the image capture device is a digital camera.

28-33. (Canceled)

Evidence Appendix under 37 C.F.R. § 41.37(c)(1)(ix)

There is no extrinsic evidence to be considered in this Appeal. Therefore, no evidence is presented in this Appendix.

Related Proceedings Appendix under 37 C.F.R. § 41.37(c)(1)(x)

There are no related proceedings to be considered in this Appeal. Therefore, no such proceedings are identified in this Appendix.